Health Information National Trends Survey

hints briefs

NUMBER 36

How Americans View the Accuracy and Value of Cancer Screening Tests

Introduction

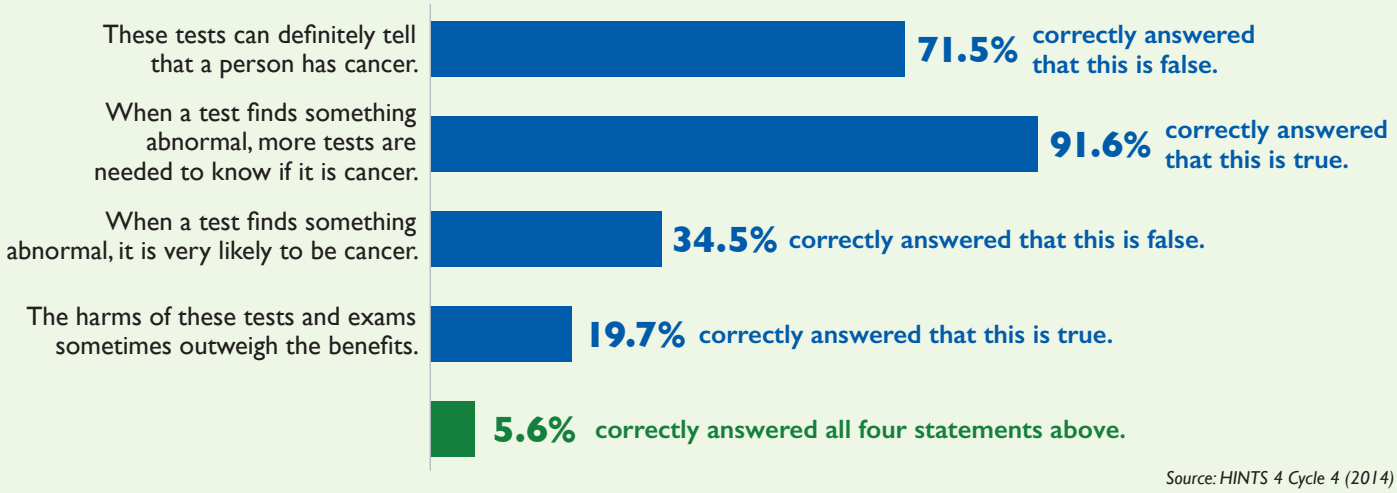
To make informed decisions about cancer screening, people must have reasonable perceptions of the accuracy and value of these tests. Cancer screening should be performed only when the benefits (e.g., accurate detection of disease and reduction of mortality) outweigh potential harms (e.g., unnecessary treatment and psychological distress). However, research suggests that individuals tend to overestimate the benefits of screening and are unaware of possible harms. For instance, one study of U.S. adults over age 50 found that 35.8 percent of the men who completed the prostate cancer module overestimated how well prostate-specific antigen (PSA) tests can detect cancer, and 30.1 percent of the women who completed the breast cancer module overestimated the ability of mammography to accurately detect cancer. Similarly, another study found that only 23 percent of women accurately perceived the extent to which regular screening mammograms decrease the risk of dying from breast cancer, with 76 percent overestimating the benefits of mammography.

Quick Facts

- To make informed decisions about cancer screening, people must have an accurate understanding of the potential benefits, harms, and uncertainties associated with screening tests.
- People routinely overestimate the benefits of screening and may not be aware of the potential harms.
- Risks of screening include complications from the procedure, false-positive or false-negative results, and unnecessary treatment.
- Although cancer screening tests can detect cancer early, not all of these tests have been shown to actually reduce mortality.

While ensuring that Americans are adhering to screening guidelines is important and can reduce cancer morbidity and mortality, it is also important that public health practitioners, health care providers, and the media accurately portray the benefits, potential harms, and uncertainties of cancer screening to the public so that screening-eligible individuals can make informed decisions about testing. This HINTS *Brief* describes the public's beliefs about cancer screening.

As far as you know, which of the following statements are true or false about medical tests or exams such as colonoscopies, mammograms, and Pap tests that check for early signs of cancer?



Source: HINTS 4 Cycle 4 (2014)

In this HINTS *Brief*, we examine the perceptions and beliefs of cancer screening among the American public.

Factors Associated With Beliefs About the Accuracy and Value of Cancer Screening

A recently published analysis used HINTS 4 Cycle 4 data (2014) to explore beliefs about cancer screening and factors associated with these beliefs. Specifically, the study looked at responses to a module that asked individuals to evaluate whether four statements about cancer screening tests are true or false. Only 5.6 percent of respondents answered all four items correctly, and there was substantial variation across items: Over 91 percent of respondents were aware that follow-up tests are needed to know if an abnormal result is cancer, but less than 20 percent knew that the harms of screening sometimes outweigh the benefits.

Being male, belonging to a racial/ethnic minority, having lower educational attainment, and believing that "there's not much you can do to lower your chances of getting cancer" were associated with less accurate screening beliefs, while a family history of cancer was associated with a higher likelihood of answering screening questions correctly. Discussing colorectal cancer screening options with a provider was also associated with more accurate screening beliefs, but the association between having decision-making conversations regarding breast or cervical cancer screening and answering screening questions correctly was not found to be significant.

How Can This Inform Your Work?

HINTS data indicate that individuals are not well-informed about cancer screening and could be making decisions based on an inaccurate understanding of the risks and benefits of cancer screening tests. Communication about screening is made challenging due to shifting screening guidelines, variable levels of individual risk, and differences in individual characteristics (such as education, fatalism, values, and preferences) that may influence perceptions of the harms, benefits, and uncertainties associated with screening. Tailored messaging, patient navigation, and shared decision-making conversations between patients and providers can help ensure that screening decisions are in line with values/preferences and the best available scientific evidence regarding the benefits and harms of a particular test. Decision aids may also be a useful way to present consistent, comprehensive, and objective information about cancer screening and may help patients clarify their values and preferences in regard to cancer screening.

About HINTS

hints.cancer.gov

The National Cancer Institute (NCI) created the Health Information National Trends Survey (HINTS) to monitor changes in the rapidly evolving field of health communication. The survey data can be used to understand how adults use communication channels to obtain health information for themselves and their loved ones. It can also help practitioners create more effective health communication strategies.

The HINTS survey has been fielded 10 times to date: HINTS 1 (2003) surveyed 6,369 Americans; HINTS 2 (2005) surveyed 5,586 Americans; HINTS 3 (2008) surveyed 7,674 Americans; HINTS 4 Cycle 1 (2011) surveyed 3,959 Americans; HINTS 4 Cycle 2 (2012) surveyed 3,630 Americans; HINTS 4 Cycle 3 (2013) surveyed 3,185 Americans; HINTS 4 Cycle 4 (2014) surveyed 3,677 Americans; HINTS FDA (2015) surveyed 3,787 Americans; HINTS 5 Cycle 1 (2017) surveyed 3,285 Americans; and HINTS FDA Cycle 2 (2017) surveyed 1,736 Americans.

HINTS *Briefs* provide a snapshot of noteworthy, data-driven research findings. They introduce population-level estimates for specific questions in the survey and summarize significant research findings resulting from analyses of how certain demographic characteristics influence specific outcomes. Many *Briefs* summarize research findings from recent peer-reviewed journal articles that have used HINTS data.

For More Information on Cancer

- Call the NCI Cancer Information Service at 1-800-4-CANCER
- Visit https://www.cancer.gov
- Order NCI publications at https://pubs.cancer.gov/ncipl/home.aspx
- Visit Facebook.com/cancer.gov and https://www.youtube.com/ncigov

NATIONAL CANCER INSTITUTE
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